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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,726	03/22/2004	Dan Enloe	42P13232C	2623

7590 08/25/2004
George Chen
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EXAMINER

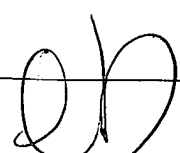
MOHAMEDULLA, SALEHA R

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/806,726	ENLOE, DAN	
	Examiner	Art Unit	
Saleha R. Mohamedulla	1756		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 10 is/are rejected.
- 7) ☒ Claim(s) 2,5-9 and 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>032204</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-14 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 4 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by US# 6,569,576 to Hsueh et al.

Hsueh teaches a pellicle and reticle apparatus used to prevent electrostatic discharge. The apparatus involves providing conducting lines on the glass side of the reticle and on the surface of the pellicle to balance any buildup of electrostatic charges on those devices, thereby reducing or eliminating the induction of opposite charges onto adjacent mask pattern features on the reticle and preventing the melting and bridging of those mask pattern features and the defects caused by such melting or bridging (Abstract). Hsueh teaches that either the pellicle or the glass side of a reticle or both may be modified to prevent bridging of the lithographic mask pattern material of the reticle between adjacent portions of the mask pattern during an IC fabrication process (col. 3, lines 40-45). Hsueh teaches that a grid of conductive lines is deposited on a pellicle for use with the reticle, wherein the conductive lines conduct electrostatic charge throughout the grid, thereby reducing the density of electrostatic charge induced on the mask

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pattern of the reticle (col. 3, line 65 – col. 4, line 5). Therefore, Hsueh teaches an electrostatic pellicle system. Figures 3 and 4 show the apparatus. Reticle 300 includes a transparent substrate having a grid of conductive lines 301 formed thereon.

Although an orthogonal grid of lines is depicted in FIG. 3, the lines may be of any pattern so long as they conduct with each other and are deposited over a substantial portion of the reticle. The mask pattern information to be transferred to a target semiconductor substrate is formed on the opposite side of the reticle than that shown in FIG. 3 (col. 5, lines 22-32). A similar grid of conductive lines is etched or deposited onto a pellicle. Figure 3 also equally shows the grid pattern that would be seen on the pellicle (col. 5, lines 40-43). Figure 4 is a cross-sectional view of the reticle of Figure 3 taken along line AA'. The reticle 300 is made of a translucent substrate and has an opaque mask pattern 305, shown in cross-section, deposited on it. The mask pattern 305 is positioned in the focal plane of the reduction lens during the mask pattern transfer process. Also shown is the supporting frame 303 for the pellicle and the pellicle surface 304 upon which a second grid of conductive lines 306, shown in cross-section, is deposited or etched. The supporting frame 303 is a pellicle spacer that is attached to the mask and the electrostatic pellicle system. The conductive lines 306 on pellicle surface 304 are positioned outside of the focal plane of the reduction lens during the mask pattern transfer process (col. 5, lines 45-60). Therefore, Hsueh teaches that the mask has an active area and that the pellicle spacer does not obstruct radiation incident on the active area.

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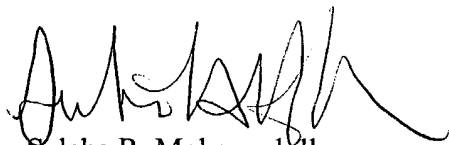
Allowable Subject Matter

3. Claims 2, 5-9 and 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not teach or suggest that the electrostatic pellicle system has a discharge array, an insulator array attached to the discharge array and a collection capture array attached to the insulator array. The prior art does not teach or suggest that the electrostatic pellicle system has a discharge array and a collection capture array parallel to the discharge array.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Saleha Mohamedulla whose telephone number is (571) 272-1387. The Examiner can normally be reached Monday-Friday, from 8:00 AM to 4:30 PM. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Saleha R. Mohamedulla
Patent Examiner
Technology Center 1700
August 23, 2004